Spidell and Associates, Ltd. Co.
2403 Spaulding, Boise, Idaho 83705
(208) 336-4862

July 31, 2003

Steve M. Ogle, E.I.T.
Permit Analyst
Air Quality Permit Program
State of Idaho Department of Environmental Quality
1410 North Hilton
Boise, Idaho 83706-1255

RE: May 1, 2003 Letter from Steve Ogle Request for Additional Information, Tier I Operating Permit Application AIRs Facility No. 079-00038, Sunstrand. Inc. Wallace.

Dear Mr. Ogle,

The January 6, 2003 Tier I Operating Permit Application has been revised to include the information you ask for in your May 1, 2003 letter. The changes include a revised emission estimate, new styrene EL calculation, emission information for the dust cyclone and a PM-10 Model analysis to demonstrate the cyclone emissions do not exceed the NAAQS PM-10 limit.

The following 5 paragraphs provide responses to each bulleted paragraph of your May 1. letter. The MSDS sheets and plan diagrams for the SM8 were included in the January application.

Bullet 1, page 1. The facility has been divided into emission units. Information for each unit is provided in Section 3 of the IDEQ forms attached as Appendix A. Emission estimates were recalculated using Vapor Suppression Resin Emission Factors.

The resin emission factors were taken from the CFA Emission Factor list as used in the Fiberglass Systems Permit Application. The Styrene Emission Factors are listed in Table 1. The Emission Summary is included as Table 2 and identifies emissions by the emission units. PM-10 Emissions for the dust cyclone are identified. The CFA Emission Factor list is attached as Table 3.

Bullet 2, page 1. The revised application contains a list of applicable regulations. The facility does not have any NSPS sources, no Combustion Sources or Generators.. Emissions from the Mark 8 building do not contain Styrene emissions or any other HAP emissions. There is only one dust cyclone that emits 0.6 pounds per hour. PM 10 Emissions were modeled to demonstrate compliance with the PM NAAQS Standards. Copies of the electronic model data are included in the revised application in Appendix C.

There are no SO2, NOX or CO emitting sources. The natural gas and hot water heating system is exempt along with the one small storage tank.

Bullet 3, page 1. Insignificant activities have been identified. The emission units are described in the IDEQ forms in Appendix A and in the Model Analysis Discussion of Appendix B.

Bullet 4, page 2. Spunstrand, Inc. has entered into a Consent Decree with the IDEQ and have paid the appropriate fine. Results of the Emission Calculations for Styrene and PM-10 along with the PM-10 Model demonstrate compliance with the Styrene EL and with the PM-10 NAAQS Standard of 150 ug/meter.

Bullet 4, page 2. The compliance description for the emission units is the monitoring of the hourly material use at each unit and the records from the quarterly Facility Fugitive and Visible Emission monitoring.

Compliance with the applicable Styrene EL can be documented using records of the gallons of material used at each emission unit per hour.

Compliance with the Facility applicable regulations can be demonstrated by performing quarterly Fugitive and Visible monitoring.

Compliance with the Fugitive Emission Regulations can be demonstrated by recording measures used, if needed to limit emissions from roads or open ground along with any product stored outside of the buildings.

Thank you for the opportunity to submit this additional information. I will endeavor to quickly respond to any future information requests. Please contact Randy or me at (208) 336-4862. When in the field, I may take 24 hours to call you back. I can not check e-mail or faxes when out of the office.

Sincerely

Ron Spidell

cc: Kirk Nelson

TIER I OPERATING PERMIT APPLICATION

Spunstrand, Incorporated
Wallace, Idaho

Prepared For: Edgar H. Nelson
Vice President of Manufacturing
Spunstrand, Incorporated
60662 Northside Frontage Road
P.O. Box 1147
Wallace, Idaho 83873
Phone: (208) 752-1157
FAX: (208) 556-0133

Prepared By: Spidell and Associates, Ltd. Co.
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July 31, 2003

Table of Contents

INTRODUCTION

Spunstrand, Incorporated has operated at 60662 Northside Frontage Road since 1961. The company makes fiberglass reinforced duct work, pipes tubing and tanks. using the filament winding method. A location map, Site Plan and Building Layout are attached as Figures 1 through 3

Filament winding is the process of laying a band of resin impregnated fibers onto a rotating mandrel surface in a precise geometric pattern and curing them to form the product. This is an efficient method of producing cylindrical parts with optimum strength characteristics. Glass fiber is used for the filament, but other materials may be used, this filament is wetted and wound on the mandrel.

The facility consists of three work areas, The Main Building, the Mark 8 Building and a Warehouse. The Main Building, depicted in Figure 3 contains 3 winding machines a pulling station, a cutting station and a chopper station. Small repairs or corrections are made using a hand held spray chopper machine. The Ware House is used for storage and packaging.

The January 6, 2003 Tier I Operating Permit Application has been revised to include the information required in a IDEQ May 1, 2003 letter. A revised emission estimate, new styrene EL calculation, emission information for the dust cyclone, a ISCTP Model with analysis to demonstrate the cyclone emissions do not exceed the NAAQS PM-10 limits have been attached. The MSDS sheets and plan diagrams for the SM8 are not changed are not included.

The facility has been divided into emission units. Information for each unit is provided in Section 3 of the IDEQ forms attached as Appendix A. Emission estimates were recalculated using Vapor Suppression Resin Emission Factors. The emission units vent through the building ventilation system.

The Styrene emission factors were taken from the CFA Emission Factor list as used in the Fiberglass Systems Permit Application. The Styrene Emission Factors are listed in Table 1. The Emission Summary is included as Table 2 and identifies emissions by the emission units. PM-10 Emissions for the dust cyclone are identified.

EMISSIONS

Styrene emissions were calculated using the Unified Emission Factors for Open Molding of Composites published by the Composites Fabricators Associated, dated July 23, 2001 and anticipated purchased quantities of the necessary chemicals. Concentrations of Styrene were taken from the MSDS Sheets contained in Appendix A of the January 2003 Application.

The calculated Styrene Emissions are below the Styrene EL of 6.6 pounds per hour. Because the emissions are below the EL and there is not a NAAQS for VOC an Air Quality Model was not performed. The pound per hour emission was calculated from the 2001 material listed contained in Table 2 and the operating hours calculated from an 8 hour work day, 6 days a week and 52 weeks per year. The potential emissions were calculated using this hourly emission rate and 8,760 hours per year.

Emissions from the Mark 8 building do not contain Styrene emissions or any other HAP emissions. There is only one dust cyclone that emits 0.6 pounds per hour. PM 10 Emissions were modeled to demonstrate compliance with the PM NAAQS Standards. A Model Analysis discussion is attached as Appendix B and the electronic model data is attached as Appendix C. There are no SO2, NOX or CO emitting sources. The natural gas and hot water heating system is exempt along with the one small storage tank.

APPLICABLE REGULATIONS

The IDEQ and Federal applicable Regulations are listed below.

IDAPA 58.01.01.008.10	Not a Major Facility
IDAPA 58.01.01.121-.128	Facility Requirements
IDAPA 58.01.01.123	Certification of Documents
IDAPA 58.01.01.130 to 136	Excess Emissions
IDAPA 58.01.01.157	Compliance Testing
IDAPA 58.01.01.200	Permit to Construct
IDAPA 58.01.01.201	PTC Required
IDAPA 58.01.01.210	Demonstration of Pre-construction Compliance with Toxic Standards
IDAPA 58.01.01.211	O and M Manual
IDAPA 58.01.01.211.01	Fugitive Dust Monitoring
IDAPA 58.01.01.211.04	Record Through Put during Test
IDAPA 58.01.01.224	Permit to Construct Application Fees
IDAPA 58.01.01.225	Permit to Construct Processing Fee
IDAPA 58.01.01.322.06-.09	Methods to Control Fugitive Dust
IDAPA 58.01.01.324	Permit Shield
IDAPA 58.01.01.550	Air Pollution Emergency Rules
IDAPA 58.01.01.577	National Ambient Air Quality Standards for Specific Air Pollutants
IDAPA 58.01.01.600-616	Rules for the Control of Open Burning
IDAPA 58.01.01.625	Visible Emissions
IDAPA 58.01.01.650-651	Fugitive Dust Reasonable Control
IDAPA 58.01.01.702	Process Rate Weight
IDAPA 58.01.01.775-776	Rules for the Control of Odors
40 CFR 52.670-690	Prevention of Significant Deterioration (PSD)

40 CFR 60	New Source Performance Standards (NSPS)
40 CFR 61 & 63	National Emission Standards for Hazardous Air Pollutants (NESHAP) and Maximum Available Control Technology (MACT)

42 U.S.C Sections 7401 through 7515
42 U.S.C Sections 7411 including 40 CFR Part 60
42 U.S.C Section 7412 including 40 CFR Part 61 and 40 CFR Part 63
42 U.S.C. Sections 7651 through 7651o Acid Rain Program
42 U.S.C Section 7414(a)(3), 42 U.S.C. Section 7661c(b) or IDAPA 120 through 128

42 U.S.C Section 7429 Solid Waste Incineration
42 U.S.C Section 7511b(e) Consumer, Commercial Products and tank vessels
42 U.S.C Sections 7671 through 7671q including 40 CFR Part 82
42 U.S.C Sections 7470 through 7492 as applied to temporary sources IDAPA 324

FACILITY CLASSIFICATION

This facility is classified as a major facility since its potential to emit is more than the following:

10 T/yr of any single hazardous air pollutant.
25 T/yr of any combination of hazardous air pollutants.

This facility is a Tier I Source and is required to apply for a Tier I Permit. The Facility is required to remit Emission Fee's.

AREA CLASSIFICATION

This facility is located in Shoshone County, which is an area that is unclassifiable for all criteria pollutants.

COMPLIANCE MONITORING

Compliance with the applicable Styrene EL can be documented using records of the gallons of material used at each emission unit per hour.

Compliance with the Facility applicable regulations can be demonstrated by performing quarterly Fugitive and Visible monitoring.

Compliance with the Fugitive Emission Regulations can be demonstrated by recording measures used, if needed to limit emissions from roads or open ground along with any product stored outside of the buildings.

Table 1
Styrene Emission Factors
Filament Application with Vapor Suppressed Resin

Styrene Content In Resin %	Emission Rate lb Styrene/Ton Resin
<33	0.12 × %Styrene × 2000
33	79
34	83
35	86
36	90
37	93
38	97
39	100
40	104
41	108
42	111
43	115
44	118
45	122
46	125
47	129
48	133
48	136
50	140
>50	0.65 × ((0.2746 × % Styrene) - 0.0298) ×2000

Emission Factors From Composites Fabricators Association, April 7, 1999.

Table 2

EMISSION SUMMARY
Spunstrand, Inc.

Actual Opperating Hours per Year 2496
Maximum Opperating Hours per Year 8760

	Resin	Quantity (lb/yr)	% Styrene	Total Styrene (lb/yr)	Emission Factor lb Styrene/ ton Resin	Actual Styrene Emissions (lb/hr)	(tons/yr)	Potential Styrene Emissions (tons/yr)
0801	Styrene	800	100.0	800.0	318.24	0.051	0.0636	0.2234
AS197P	Hetron Polyester 197P	12,000	42.0	5040.0	111	0.267	0.3330	1.1687
AS620T20	Hetron FR 620T20	13,750	32.3	4441.3	77.52	0.214	0.2665	0.9352
AS700	Ashland Hetron	450	41.0	184.5	108	0.010	0.0122	0.0426
AS7334T15	Flex Iso	15,500	41.0	6355.0	108	0.335	0.4185	1.4688
AS922L	Hetron FR 922L	14,400	48.0	6912.0	133	0.384	0.4788	1.6804
AS922L25	Hetron Vinyl Ester	4,500	41.0	1845.0	108	0.097	0.1215	0.4264
AS99P	Hetron ISO FR 99P	29,150	36.0	10494.0	90	0.526	0.6559	2.3019
ASFR620T20	FR Hetron Resin	18,150	32.3	5862.5	77.52	0.282	0.3517	1.2345
ASFR992	Hetron VE 922	51,000	41.0	20910.0	108	1.103	1.3770	4.8327
ASQ6367	FR Hetron Resin 6367	2,750	41.0	1127.5	108	0.059	0.0743	0.2606
ASQ6490	Terephthalic Lam Res	126,520	44.6	56427.9	120.4	3.051	3.8083	13.3655
B-396P-IUU	Roberts Gray Iso Gel	142	28.0	39.8	67.2	0.002	0.0024	0.0084
510-C-350M VE	DX Derakane	19,436	35.0	6802.6	86	0.335	0.4179	1.4666
FV 742-7695	Iso Resin	45	41.9	18.9	110.7	0.001	0.0012	0.0044
DX 745-4635	Iso Resin	8,000	46.9	3752.0	128.6	0.206	0.2572	0.9027
411-45 4852	DX Derakane	904	45.0	406.8	122	0.022	0.0276	0.0968
510A-40	DX Derakane	8,619	37.5	3232.1	95	0.164	0.2047	0.7184
470-300M VE	DX Derakane	13,550	33.0	4471.5	79	0.214	0.2676	0.9392
	Total	**316,466**		**139123.3**		**7.324**	**9.140**	**32.077**
	Total on-site use (90%)	**284,819**		**125,210.93**		**6.591**	**8.226**	**28.869**

Styrene Emissions

Emission Unit	(lb/hr)	(tons/yr)
MAC 1	2.636	11.548
MAC 2	2.636	11.548
MAC 3	1.318	5.774
TOTAL	**6.591**	**28.869**

PM10 Emissions

Emission Unit	Emission Factor grains/dscf	Exhaust Flow dscf/min	Potential PM Emission Rate lb/hr	tons/yr
Dust Collection Cyclone	0.1	700.4	0.600	2.630

Material Balance

Material	lb/hr Used
Total Resin	114.11
Total Styrene Used	50.16
Total Styrene Emissions	6.591
Total Styrene in Product	43.57
Total Fiberglass Filiment	139.47
Total Product	253.58
Total Dust	223.15
Total Waste	30.43

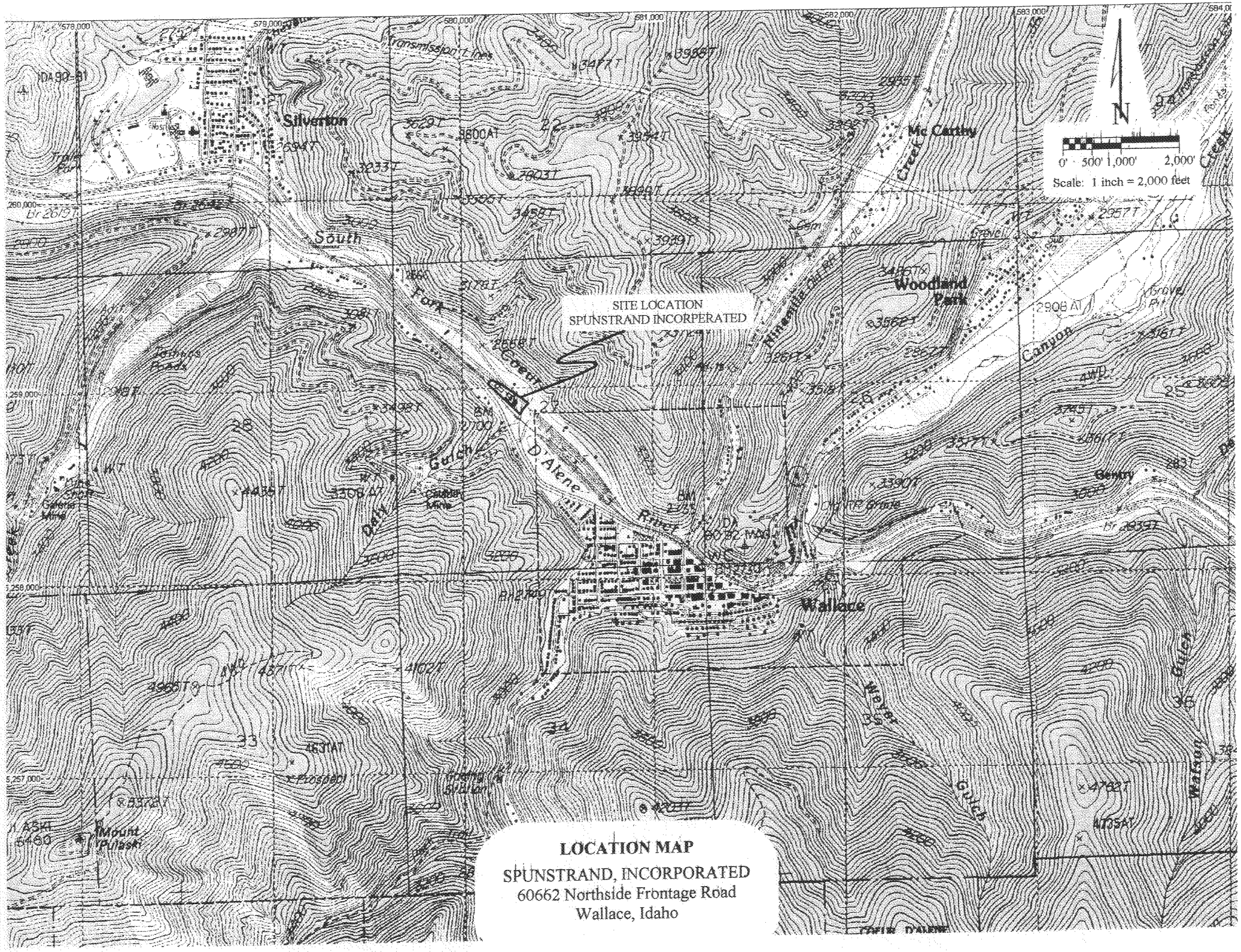
Styrene Emission Calculations

Unified Emission Factors for Open Molding of Composites

Provided by Composites Fabricators Association, dated July 23, 2001

Emission Rate in Pounds of Styrene Emitted per Ton of Resin or Gelcoat Processed

Application Process	Styrene content in resin/gelcoat, % [1]	<33 [2]	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	>50 [2]
	Manual	0.126 x % styrene x 2000	83	89	94	100	106	112	117	123	129	134	140	146	152	157	163	169	174	180	((0.286 x % styrene) - 0.0529) x 2000
	Manual with Vapor Suppressed Resin VSR [3]	**Manual emission factor** [listed above] x (1 - (0.50 x specific VSR reduction factor for each resin/suppressant formulation))																			
	Mechanical Atomized	0.169 x % styrene x 2000	111	126	140	154	168	183	197	211	225	240	254	268	283	297	311	325	340	354	((0.714 x % styrene) - 0.18) x 2000
	Mechanical Atomized with VSR [3]	**Mechanical Atomized emission factor** [listed above] x (1 - (0.45 x specific VSR reduction factor for each resin/suppressant formulation))																			
	Mechanical Atomized Controlled Spray [4]	0.130 x % styrene x 2000	86	97	108	119	130	141	152	163	174	185	196	207	218	229	240	251	262	273	0.77 x ((0.714 x % styrene) - 0.18) x 2000
	Mechanical Controlled Spray with VSR	**Mechanical Atomized Controlled Spray emission factor** [listed above] x (1 - (0.45 x specific VSR reduction factor for each resin/suppressant formulation))																			
	Mechanical Non-Atomized	0.107 x % styrene x 2000	71	74	77	80	83	86	89	93	96	99	102	105	108	111	115	118	121	124	((0.157 x % styrene) - 0.0165) x 2000
	Mechanical Non-Atomized with VSR [3]	**Mechanical Non-Atomized emission factor** [listed above] x (1 - (0.45 x specific VSR reduction factor for each resin/suppressant formulation))																			
	Filament application	0.184 x % styrene x 2000	122	127	133	138	144	149	155	160	166	171	177	182	188	193	199	204	210	215	((0.2746 x % styrene) - 0.0298) x 2000
	Filament application with VSR [3][5]	0.120 x % styrene x 2000	79	83	86	90	93	97	100	104	108	111	115	118	122	125	129	133	136	140	0.65 x ((0.2746 x % styrene) - 0.0298) x 2000
	Gelcoat Application	0.445 x % styrene x 2000	294	315	336	356	377	398	418	439	460	481	501	522	543	564	584	605	626	646	((1.03646 x % styrene)- 0.195) x 2000
	Gelcoat Controlled Spray Application [4]	0.325 x % styrene x 2000	215	230	245	260	275	290	305	321	336	351	366	381	396	411	427	442	457	472	0.73 x ((1.03646 x % styrene) - 0.195) x 2000
	Gelcoat Non-Atomized Application [6]	SEE **Note 7** below	196	205	214	223	232	241	250	259	268	278	287	296	305	314	323	332	341	350	((0.4506 x % styrene) - 0.0505) x 2000
	Covered-Cure after Roll-Out	**Non-VSR process emission factor** [listed above] x (0.80 for Manual <or> 0.85 for Mechanical)																			
	Styrene content in resin/ gel coat, % [1]	<33 [2]	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	>50 [2]
	Covered-Cure without Roll-Out	**Non-VSR process emission factor** [listed above] x (0.50 for Manual <or> 0.55 for Mechanical)																			



LOCATION MAP

SPUNSTRAND, INCORPORATED
60662 Northside Frontage Road
Wallace, Idaho

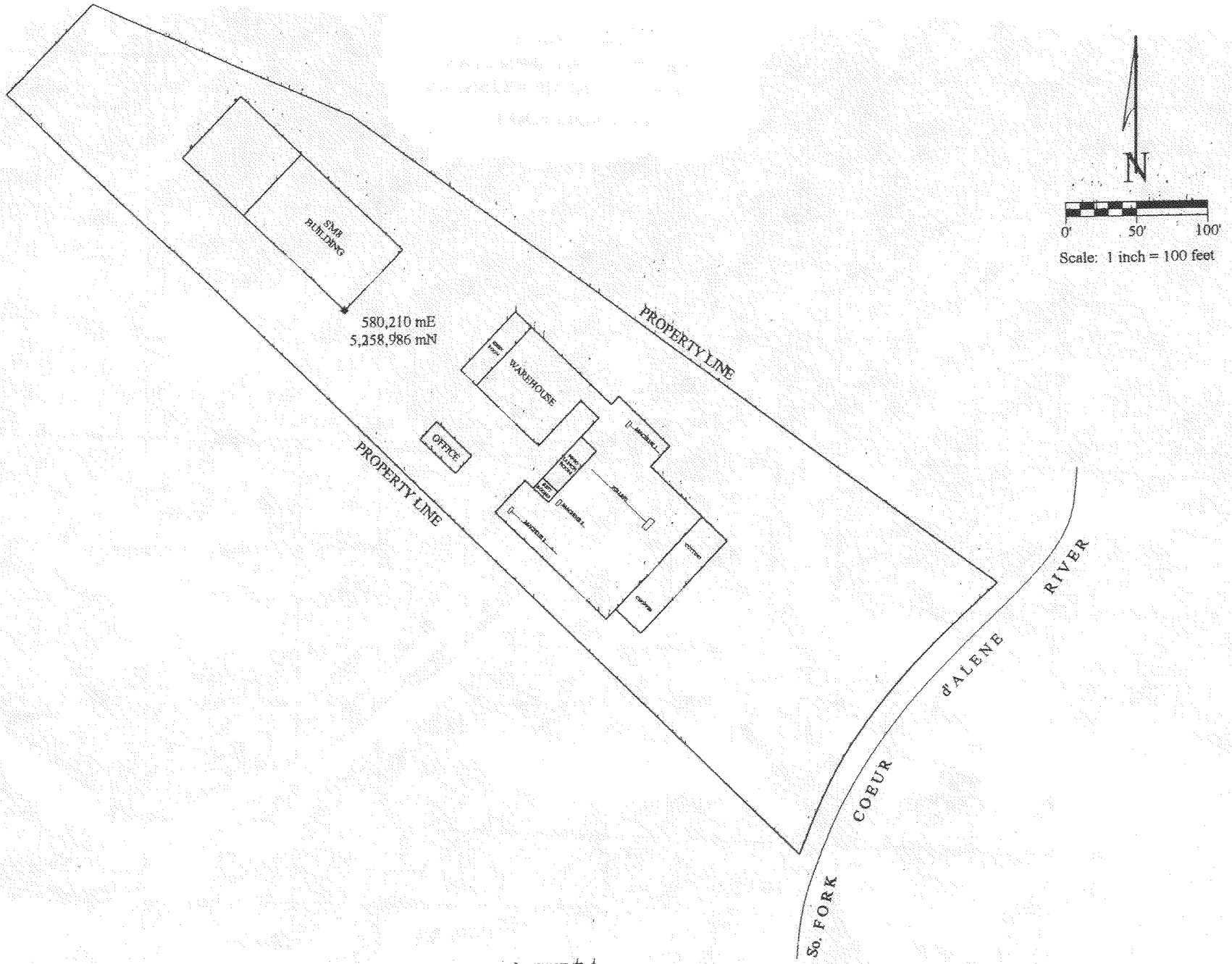


FIGURE 2

PLAN MAP

SPUNSTRAND, INCORPORATED
60662 Northside Frontage Road
Wallace, Idaho

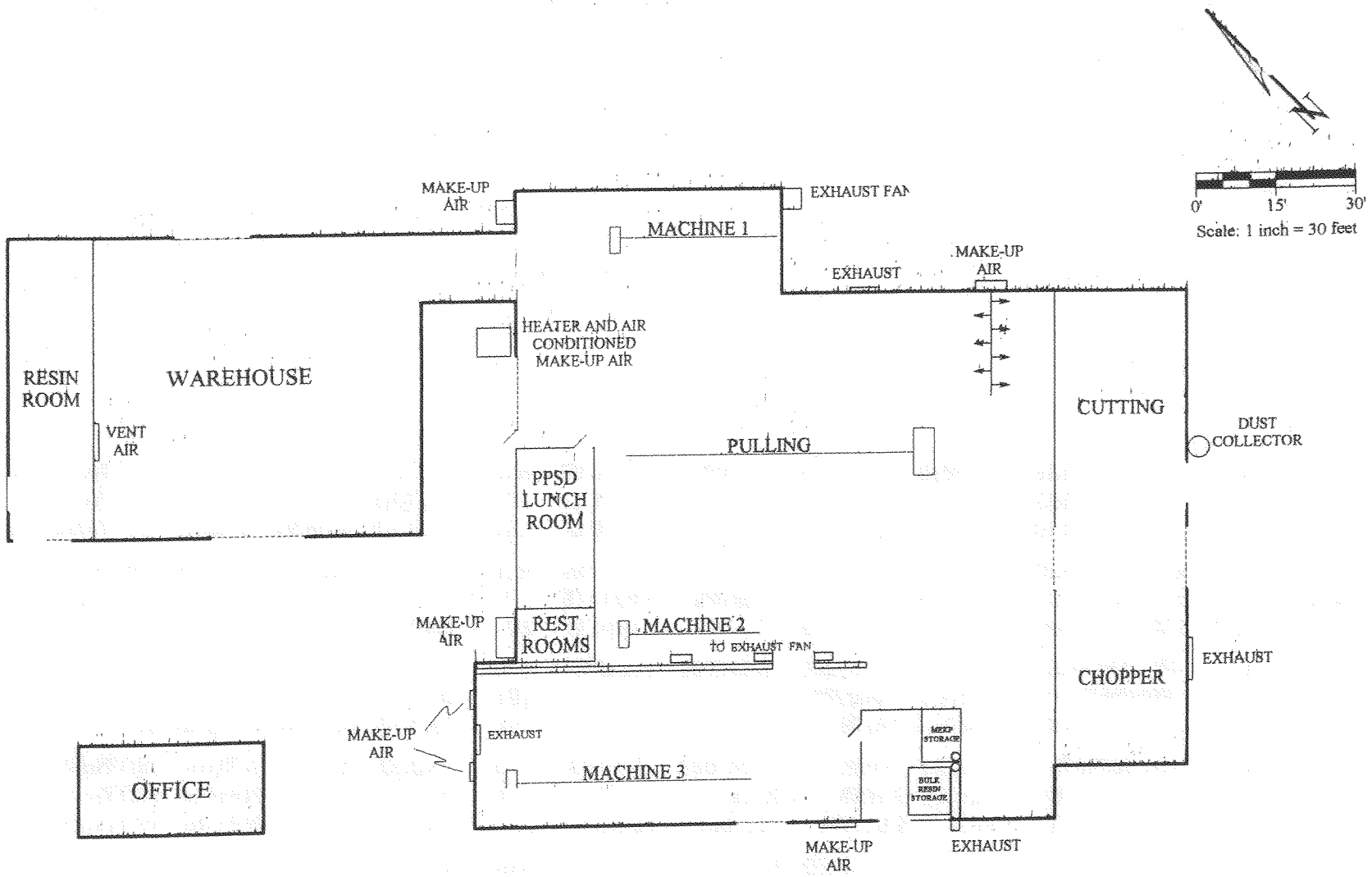


FIGURE 3

BUILDING LAYOUT

SPUNSTRAND, INCORPORATED
60662 Northside Frontage Road
Wallace, Idaho

PM10 Air Dispersion Modeling Results
Spunstrand Incorporated

Model	File	Pol	Average	Group	Rank	Conc.	East(X)	North(Y)	Time	Met File	Sources	Groups	Rec.
ISC3P	Prim87PM.USF	PMTEN	ANNUAL	DCCYC	1ST	13.51546	580270	5258905.5	8760	Spoke87.met	1	1	903
ISC3P	Prim87PM.USF	PMTEN	24-HR	DCCYC	1ST	106.54626	580243.38	5258931.5	87121724	Spoke87.met	1	1	903
ISC3P	Prim87PM.USF	PMTEN	24-HR	DCCYC	6TH	71.4808	580243.38	5258931.5	87010624	Spoke87.met	1	1	903
ISC3P	Prim88PM.USF	PMTEN	ANNUAL	DCCYC	1ST	14.51983	580270	5258905.5	8784	Spoke88.met	1	1	903
ISC3P	Prim88PM.USF	PMTEN	24-HR	DCCYC	1ST	86.56806	580243.38	5258931.5	88013124	Spoke88.met	1	1	903
ISC3P	Prim88PM.USF	PMTEN	24-HR	DCCYC	6TH	63.5475	580230.13	5258944	88010424	Spoke88.met	1	1	903
ISC3P	Prim89PM.USF	PMTEN	ANNUAL	DCCYC	1ST	13.22056	580256.69	5258918.5	8760	Spoke89.met	1	1	903
ISC3P	Prim89PM.USF	PMTEN	24-HR	DCCYC	1ST	84.5665	580230.13	5258944	89020724	Spoke89.met	1	1	903
ISC3P	Prim89PM.USF	PMTEN	24-HR	DCCYC	6TH	53.03784	580243.38	5258931.5	89103124	Spoke89.met	1	1	903
ISC3P	Prim90PM.USF	PMTEN	ANNUAL	DCCYC	1ST	14.94815	580270	5258905.5	8760	SPOKE90.MET	1	1	903
ISC3P	Prim90PM.USF	PMTEN	24-HR	DCCYC	1ST	92.15041	580270	5258905.5	90110524	SPOKE90.MET	1	1	903
ISC3P	Prim90PM.USF	PMTEN	24-HR	DCCYC	6TH	56.52797	580270	5258905.5	90101024	SPOKE90.MET	1	1	903
ISC3P	Prim91PM.USF	PMTEN	ANNUAL	DCCYC	1ST	13.80631	580256.69	5258918.5	8760	SPOKE91.MET	1	1	903
ISC3P	Prim91PM.USF	PMTEN	24-HR	DCCYC	1ST	77.81767	580243.38	5258931.5	91112924	SPOKE91.MET	1	1	903
ISC3P	Prim91PM.USF	PMTEN	24-HR	DCCYC	6TH	55.04554	580270	5258905.5	91091624	SPOKE91.MET	1	1	903

Appendix A

IDEQ Application Forms

SECTION 1: GENERAL INFORMATION

COMPANY & DIVISION NAME

STREET ADDRESS OR P.O. BOX

CITY

STATE ZIP

PERSON TO CONTACT

TITLE

PHONE NUMBER

EXACT PLANT LOCATION

GENERAL NATURE OF BUSINESS

NUMBER OF FULL-TIME EMPLOYEES

PROPERTY AREA (ACRES)

REASON FOR APPLICATION

(1) Change of Owner or Location
(2) Tier I Permit to Operate
(3) Tier II Permit to Operate

DISTANCE TO NEAREST STATE BORDER (MILES)

PRIMARY SIC

SECONDARY SIC

PLANT LOCATION COUNTY

ELEVATION (FT)

UTM ZONE

UTM (X) COORDINATE (KM)

UTM (Y) COORDINATE (KM)

NAME OF FACILITIES

LOCATION OF OTHER FACILITIES

List all facilities with the State that are under your control or under common control and have emissions to the air. If none, so state.

OWNER OR RESPONSIBLE OFFICIAL

TITLE OF RESPONSIBLE OFFICIAL

Based on information and belief formed after reasonable inquiry
I certify the statements and information in this document are accurate and complete

SIGNATURE OF OWNER OR RESPONSIBLE OFFICIAL

DATE 7-29-03

SECTION 1: GENERAL INFORMATION

COMPANY & DIVISION NAME	Spundstrand Incorporated
STREET ADDRESS OR P.O. BOX	P.O. Box 1147
CITY	Wallace
STATE Idaho ZIP	83873
PERSON TO CONTACT	Edgar H. Nelson
TITLE	Vice President of Manufacturing
PHONE NUMBER	(208) 752-1157
EXACT PLANT LOCATION	60662 Northside Frontage Road, Wallace, Idaho
GENERAL NATURE OF BUSINESS	Fiberglass Filament Winding
NUMBER OF FULL-TIME EMPLOYE	36
PROPERTY AREA (ACRES)	3
REASON FOR APPLICATION (1) Change of Owner or Location (2) Tier I Permit to Operate (3) Tier II Permit to Operate	2
DISTANCE TO NEAREST STATE BO (MILES)	25
PRIMARY SIC	3084
SECONDARY SIC	
PLANT LOCATION COUNTY	Shoshone
ELEVATION (FT)	2,700
UTM ZONE	11
UTM (X) COORDINATE (KM)	580.269
UTM (Y) COORDINATE (KM)	5,258.941

NAME OF FACILITIES	LOCATION OF OTHER FACILITIES

List all facilities with the State that are under your control or under common control and have emissions to the air. If none, so state.

NONE	
OWNER OR RESPONSIBLE OFFICIAL	Edgar H. Nelson
TITLE OF RESPONSIBLE OFFICIAL	Vice President of Manufacturing

Based on information and belief formed after reasonable inquiry
I certify the statements and information in this document are accurate and complete.

SIGNATURE OF OWNER OR RESPONSIBLE OFFICIAL	DATE

SECTION 2: FUEL BURNING EQUIPMENT NOT APPLICABLE

DEQ USE ONLY

DEQ PLANT ID CODE		DEQ PROCESS CODE		DEQ STACK ID CODE	
DEQ BUILDING CODE		PRIMARY SCC		SECONDARY SCC	
DEQ SEGMENT CODE					

PART A: GENERAL INFORMATION

PROCESS CODE OR DESCRIPTION

STACK DESCRIPTION

BUILDING DESCRIPTION

MANUFACTURER MODEL DATE INSTALLED

DATE LAST MODIFIED

RATED CAPACITY (CHOOSE APPROPRIATE UNITS)

MILLION BTU/HR 1000 LBS STEAM/HR KILOWATTS HORSEPOWER

BURNER TYPE % USED FOR PROCESS

% USED FOR SPACE HEAT

FUEL DATA

PARAMETER	PRIMARY FUEL	UNITS	SECONDARY FUEL	UNITS
FUEL CODE (SEE NOTE)				
PERCENT SULFUR				
PERCENT ASH				
PERCENT NITROGEN				
PERCENT CARBON				
PERCENT HYDROGEN				
PERCENT MOISTURE				
HEAT CONTENT (BTU/UNIT)				
MAXIMUM HOURLY COMBUSTION RATE (UNITS/HR)				
NORMAL ANNUAL COMBUSTION RATE (UNITS/YR)				

NOTE: BURNER TYPE - 01) SPREAD STOKER; 02) CHAIN OR TRAVELING GRATE; 03) HAND FIRED; 04) CYCLONE FURNACE;
05) WET BOTTOM (PULVERIZED COAL); 06) DRY BOTTOM (PULVERIZED COAL);
07) UNDERFEED STOKERS; 08) TANGENTIALLY FIRED; 09) HORIZONTALLY FIRED; 10) AXIALLY FIRED;
11) OTHER (SPECIFY)

FUEL CODES - 01) NATURAL GAS; 02) #1 OR #2 FUEL OIL; 03) #4 FUEL OIL; 04) #5 OR #6 FUEL OIL; 05) USED OIL
06) WOOD CHIPS; 07) WOOD BARK; 08) WOOD SHAVINGS; 09) SANDER DUST;
10) SUBBITUMINOUS COAL; 11) BITUMINOUS COAL; 12) ANTHRACITE COAL; 13) LIGNITE COAL
14) PROPANE; 15) OTHER (SPECIFY)

SECTION 2, PART B NOT APPLICABLE

OPERATING DATA

PERCENT FUEL CONSUMPTION PER QUARTER

DEC-FEB	
MAR-MAY	
JUN-AUG	
SEP-NOV	

OPERATING SCHEDULE

HOURS/DAY	
DAY/WEEK	
WEEKS/YEAR	

POLLUTION CONTROL EQUIPMENT

PARAMETER	PRIMARY	SECONDARY
TYPE		
TYPE CODE (FROM APP. A)		
MANUFACTURER		
MODEL NUMBER		
PRESSURE DROP (IN. OF WATER)		
WET SCRUBBER FLOW (GPM)		
BAGHOUSE AIR/CLOTH RATIO (FPM)		

VENTILATION AND BUILDING/AREA DATA

ENCLOSED (Y/N)?	
HOOD TYPE (FROM APP. B)	
MINIMUM FLOW (ACFM)	
PERCENT CAPTURE EFFICIENCY	
BUILDING HEIGHT (FT)	
BUILDING/AREA LENGTH (FT)	
BUILDING/AREA WIDTH (FT)	

STACK DATA

GROUND ELEVATION (FT)	
UTM X COORDINATE (KM)	
UTM Y COORDINATE (KM)	
STACK TYPE (SEE NOTE BELOW)	
STACK EXIT HEIGHT FROM GROUND LEVEL (FT)	
STACK EXIT DIAMETER (FT)	
STACK EXIT GAS FLOWRATE (ACFM)	
STACK EXIT TEMPERATURE (DEG. F)	

AIR POLLUTANT EMISSIONS

POLLUTANT	CAS NUMBER	EMISSION FACTOR (SEE BELOW)	PERCENT CONTROL EFFICIENCY	ESTIMATED OR MEASURED EMISSIONS (LBS/HR)	ALLOWABLE EMISSIONS (LBS/HR)	(TONS/YR)	REFERENCE
PM							
PM-10							
SO2							
CO							
NOX							
VOC							
LEAD							

NOTE: STACK TYPE - 01) DOWNWARD; 02) VERTICAL (UNCOVERED); 03) VERTICAL (COVERED); 04) HORIZONTAL; 05) FUGITIVE
EMISSION FACTOR IN LBS/UNITS. PLEASE USE SAME HOURLY UNITS GIVEN IN FUEL DATA SECTION.

SECTION 3: PROCESS AND MANUFACTURING OPERATIONS

DEQ USE ONLY

DEQ PLANT ID CODE		DEQ PROCESS CODE		DEQ STACK ID CODE	
DEQ BUILDING CODE		PRIMARY SCC		SECONDARY SCC	
DEQ SEGMENT CODE					

PART A: GENERAL INFORMATION

PROCESS CODE OR DESCRIPTION	MAC1
STACK DESCRIPTION	NOT APPLICABLE
BUILDING DESCRIPTION	BLDG1

MANUFACTURER		MODEL		DATE INSTALLED	
				DATE LAST MODIFIED	

PROCESSING DATA

PROCESS STREAM	MATERIAL DESCRIPTION	MAXIMUM HOURLY RATE	ACTUAL HOURLY RATE	UNITS
INPUT	Fiberglass Filament and Resin	101.431	101.431	lb/hr
PRODUCT OUTPUT	Fiberglass Duct	89.26	89.26	lb/hr
WASTE OUTPUT	Trim Scrap	12.172	12.172	lb/hr
RECYCLE				

POTENTIAL HAPS IN PROCESS STREAM(S)

HAP DESCRIPTION	HAP CAS NUMBER	FRACTION IN INPUT STREAM BY WEIGHT	FRACTION IN PRODUCT STREAM BY WEIGHT	FRACTION IN WASTE STREAM BY WEIGHT	FRACTION IN RECYCL STREAM BY WEIGHT
STYRENE	100-42-5	0.1978	0.0938	0.0128	0

SECTION 3, PART B

OPERATING DATA

PERCENT FUEL CONSUMPTION PER QUARTER

DEC-FEB	NA
MAR-MAY	NA
JUN-AUG	NA
SEP-NOV	NA

OPERATING SCHEDULE

HOURS/DAY	8
DAY/WEEK	6
WEEKS/YEAR	52

POLLUTION CONTROL EQUIPMENT

PARAMETER	PRIMARY	SECONDARY
TYPE	Vapor Suppressant	
TYPE CODE (FROM APP. A)	99	
MANUFACTURER	Styrid	
MODEL NUMBER	Not Applicable	
PRESSURE DROP (IN. OF WATER)	NA	
WET SCRUBBER FLOW (GPM)	NA	
BAGHOUSE AIR/CLOTH RATIO (FPM)	NA	

VENTILATION AND BUILDING/AREA DATA

ENCLOSED (Y/N)?	N
HOOD TYPE (FROM APP. B)	NA
MINIMUM FLOW (ACFM)	NA
PERCENT CAPTURE EFFICIENCY	NA
BUILDING HEIGHT (FT)	24
BUILDING/AREA LENGTH (FT)	140
BUILDING/AREA WIDTH (FT)	120

STACK DATA

GROUND ELEVATION (FT)	NA
UTM X COORDINATE (KM)	NA
UTM Y COORDINATE (KM)	NA
STACK TYPE (SEE NOTE BELOW)	NA
STACK EXIT HEIGHT FROM GROUND LEVEL (FT)	NA
STACK EXIT DIAMETER (FT)	NA
STACK EXIT GAS FLOWRATE (ACFM)	NA
STACK EXIT TEMPERATURE (DEG. F)	NA

AIR POLLUTANT EMISSIONS

POLLUTANT	CAS NUMBER	EMISSION FACTOR (SEE BELOW)	PERCENT CONTROL EFFICIENCY	ESTIMATED OR MEASURED EMISSIONS (LBS/HR)	ALLOWABLE EMISSIONS (LBS/HR)	ALLOWABLE EMISSIONS (TONS/YR)	REFERENCE
PM		NA					
PM-10		NA					
SOZ		NA					
CO		NA					
NOX		NA					
VOC		67.2-318.24		2.636		11.548	
LEAD		NA					
Styrene	100-42-5	67.2-318.24		2.636		11.548	

NOTE: STACK TYPE - 01) DOWNWARD; 02) VERTICAL (UNCOVERED); 03) VERTICAL (COVERED); 04) HORIZONTAL; 05) FUGITIVE

EMISSION FACTOR IN LBS/UNITS. PLEASE USE SAME HOURLY UNITS GIVEN IN FUEL DATA SECTION.

NOTE: Emission Factor in lb Styrene/ton resin. Factor Varies with Percent Styrene in Resin.

SECTION 3: PROCESS AND MANUFACTURING OPERATIONS

DEQ USE ONLY

DEQ PLANT ID CODE		DEQ PROCESS CODE		DEQ STACK ID CODE	
DEQ BUILDING CODE		PRIMARY SCC		SECONDARY SCC	
DEQ SEGMENT CODE					

PART A: GENERAL INFORMATION

PROCESS CODE OR DESCRIPTION	MAC2
STACK DESCRIPTION	NOT APPLICABLE
BUILDING DESCRIPTION	BLDG1

MANUFACTURER		MODEL		DATE INSTALLED	
				DATE LAST MODIFIED	

PROCESSING DATA

PROCESS STREAM	MATERIAL DESCRIPTION	MAXIMUM HOURLY RATE	ACTUAL HOURLY RATE	UNITS
INPUT	Fiberglass Filament and Resin	101.431	101.431	lb/hr
PRODUCT OUTPUT	Fiberglass Duct	89.26	89.26	lb/hr
WASTE OUTPUT	Trim Scrap	12.172	12.172	lb/hr
RECYCLE				

POTENTIAL HAPS IN PROCESS STREAM(S)

HAP DESCRIPTION	HAP CAS NUMBER	FRACTION IN INPUT STREAM BY WEIGHT	FRACTION IN PRODUCT STREAM BY WEIGHT	FRACTION IN WASTE STREAM BY WEIGHT	FRACTION IN RECYCL STREAM BY WEIGHT
STYRENE	100-42-5	0.1978	0.0938	0.0128	0

SECTION 3, PART B

OPERATING DATA

PERCENT FUEL CONSUMPTION PER QUARTER

DEC-FEB	NA
MAR-MAY	NA
JUN-AUG	NA
SEP-NOV	NA

OPERATING SCHEDULE

HOURS/DAY	8
DAY/WEEK	6
WEEKS/YEAR	52

POLLUTION CONTROL EQUIPMENT

PARAMETER	PRIMARY	SECONDARY
TYPE	Vapor Suppressant	
TYPE CODE (FROM APP. A)	99	
MANUFACTURER	Styrid	
MODEL NUMBER	Not Applicable	
PRESSURE DROP (IN. OF WATER)	NA	
WET SCRUBBER FLOW (GPM)	NA	
BAGHOUSE AIR/CLOTH RATIO (FPM)	NA	

VENTILATION AND BUILDING/AREA DATA

ENCLOSED (Y/N)?	N
HOOD TYPE (FROM APP. B)	NA
MINIMUM FLOW (ACFM)	NA
PERCENT CAPTURE EFFICIENCY	NA
BUILDING HEIGHT (FT)	24
BUILDING/AREA LENGTH (FT)	140
BUILDING/AREA WIDTH (FT)	120

STACK DATA

GROUND ELEVATION (FT)	NA
UTM X COORDINATE (KM)	NA
UTM Y COORDINATE (KM)	NA
STACK TYPE (SEE NOTE BELOW)	NA
STACK EXIT HEIGHT FROM GROUND LEVEL (FT)	NA
STACK EXIT DIAMETER (FT)	NA
STACK EXIT GAS FLOWRATE (ACFM)	NA
STACK EXIT TEMPERATURE (DEG. F)	NA

AIR POLLUTANT EMISSIONS

POLLUTANT	CAS NUMBER	EMISSION FACTOR (SEE BELOW)	PERCENT CONTROL EFFICIENCY	ESTIMATED OR MEASURED EMISSIONS (LBS/HR)	ALLOWABLE EMISSIONS (LBS/HR)	ALLOWABLE EMISSIONS (TONS/YR)	REFERENCE
PM		NA					
PM-10		NA					
SO2		NA					
CO		NA					
NOX		NA					
VOC		67.2-318.24		2.636		11.548	
LEAD		NA					
Styrene	100-42-5	67.2-318.24		2.636		11.548	

NOTE: STACK TYPE - 01) DOWNWARD; 02) VERTICAL (UNCOVERED); 03) VERTICAL (COVERED); 04) HORIZONTAL; 05) FUGITIVE

EMISSION FACTOR IN LBS/UNITS. PLEASE USE SAME HOURLY UNITS GIVEN IN FUEL DATA SECTION.

NOTE: Emission Factor in lb Styrene/ton resin. Factor Varies with Percent Styrene in Resin.

SECTION 3: PROCESS AND MANUFACTURING OPERATIONS

DEQ USE ONLY

DEQ PLANT ID CODE		DEQ PROCESS CODE		DEQ STACK ID-CODE	
DEQ BUILDING CODE		PRIMARY SCC		SECONDARY SCC	
DEQ SEGMENT CODE					

PART A: GENERAL INFORMATION

PROCESS CODE OR DESCRIPTION	MAC3
STACK DESCRIPTION	NOT APPLICABLE
BUILDING DESCRIPTION	BLDG1

MANUFACTURER		MODEL		DATE INSTALLED	
				DATE LAST MODIFIED	

PROCESSING DATA

PROCESS STREAM	MATERIAL DESCRIPTION	MAXIMUM HOURLY RATE	ACTUAL HOURLY RATE	UNITS
INPUT	Fiberglass Filament and Resin	50.716	50.716	lb/hr
PRODUCT OUTPUT	Fiberglass Duct	44.630	44.630	lb/hr
WASTE OUTPUT	Trim Scrap	6.086	6.086	lb/hr
RECYCLE				

POTENTIAL HAPS IN PROCESS STREAM(S)

HAP DESCRIPTION	HAP CAS NUMBER	FRACTION IN INPUT STREAM BY WEIGHT	FRACTION IN PRODUCT STREAM BY WEIGHT	FRACTION IN WASTE STREAM BY WEIGHT	FRACTION IN RECYCL STREAM BY WEIGHT
STYRENE	100-42-5	0.1978	0.0938	0.0128	0

SECTION 3, PART B

OPERATING DATA

PERCENT FUEL CONSUMPTION PER QUARTER

DEC-FEB	NA
MAR-MAY	NA
JUN-AUG	NA
SEP-NOV	NA

OPERATING SCHEDULE

HOURS/DAY	8
DAY/WEEK	6
WEEKS/YEAR	52

POLLUTION CONTROL EQUIPMENT

PARAMETER	PRIMARY	SECONDARY
TYPE	Vapor Suppressant	
TYPE CODE (FROM APP. A)	99	
MANUFACTURER	Styrid	
MODEL NUMBER	Not Applicable	
PRESSURE DROP (IN. OF WATER)	NA	
WET SCRUBBER FLOW (GPM)	NA	
BAGHOUSE AIR/CLOTH RATIO (FPM)	NA	

VENTILATION AND BUILDING/AREA DATA

ENCLOSED (Y/N)?	N
HOOD TYPE (FROM APP. B)	NA
MINIMUM FLOW (ACFM)	NA
PERCENT CAPTURE EFFICIENCY	NA
BUILDING HEIGHT (FT)	24
BUILDING/AREA LENGTH (FT)	140
BUILDING/AREA WIDTH (FT)	120

STACK DATA

GROUND ELEVATION (FT)	NA
UTM X COORDINATE (KM)	NA
UTM Y COORDINATE (KM)	NA
STACK TYPE (SEE NOTE BELOW)	NA
STACK EXIT HEIGHT FROM GROUND LEVEL (FT)	NA
STACK EXIT DIAMETER (FT)	NA
STACK EXIT GAS FLOWRATE (ACFM)	NA
STACK EXIT TEMPERATURE (DEG. F)	NA

AIR POLLUTANT EMISSIONS

POLLUTANT	CAS NUMBER	EMISSION FACTOR (SEE BELOW)	PERCENT CONTROL EFFICIENCY	ESTIMATED OR MEASURED EMISSIONS (LBS/HR)	ALLOWABLE EMISSIONS (LBS/HR)	ALLOWABLE EMISSIONS (TONS/YR)	REFERENCE
PM		NA					
PM-10		NA					
SO2		NA					
CO		NA					
NOX		NA					
VOC		67.2-318.24		1.318		5.774	
LEAD		NA					
Styrene	100-42-5	67.2-318.24		1.318		5.774	

NOTE: STACK TYPE = 01) DOWNWARD; 02) VERTICAL (UNCOVERED); 03) VERTICAL (CO)); 04) HORIZONTAL FUGITIVE

EMISSION FACTOR IN LBS/UNITS. PLEASE USE SAME HOURLY UNITS GIVEN IN FUEL DATA SECTION.

NOTE: Emission Factor in lb Styrene/ton resin. Factor Varies with Percent Styrene in Resin.

SECTION 4: WASTE INCINERATION

NOT APPLICABLE

DEQ USE ONLY

DEQ PLANT ID CODE		DEQ PROCESS CODE		DEQ STACK ID CODE	
DEQ BUILDING CODE		PRIMARY SCC		SECONDARY SCC	
DEQ SEGMENT CODE					

PART A: GENERAL INFORMATION

PROCESS CODE OR DESCRIPTION

STACK DESCRIPTION

BUILDING DESCRIPTION

MANUFACTURER | MODEL | DATE INSTALLED

DATE LAST MODIFIED

INCINERATOR TYPE | RATED HEATING CAPACITY (MILLION BTU/HOUR)

PRIMARY COMBUSTION CHAMBER DATA

WASTE RETENTION TIME (MINUTES) | MINIMUM TEMPERATURE (DEG. F) | COMBUSTION AIR FEED RATE (ACFM)

BURNER TYPE | PERCENT OVERFIRE AIR | GAUGE PRESSURE (IN. H20)

PERCENT UNDERFIRE AIR

PRIMARY CHAMBER FUEL DATA

PARAMETER	PRIMARY FUEL	UNITS	SECONDARY FUEL	UNITS
FUEL CODE (SEE NOTE)				
PERCENT SULFUR				
PERCENT ASH				
PERCENT NITROGEN				
PERCENT CARBON				
PERCENT HYDROGEN				
PERCENT MOISTURE				
HEAT CONTENT (BTU/UNIT)				
MAXIMUM HOURLY COMBUSTION RATE (UNITS/HR)				
NORMAL ANNUAL COMBUSTION RATE (UNITS/YR)				

NOTE: INCINERATOR TYPES - 01) SINGLE CHAMBER; 02) MULTIPLE HEARTH; 03) ROTARY KILN; 04) FLUIDIZED BED;
05) OTHER (SPECIFY)

BURNER TYPE - 01) AXIAL FIRING; 02) RADIAL FIRING; 03) TANGENTIAL FIRING;
04) OTHER (SPECIFY)

FUEL CODES - 01) NATURAL GAS; 02) #1 OR #2 FUEL OIL; 03) #4 FUEL OIL; 04) #5 OR #6 FUEL OIL; 05) PROPANE
06) OTHER (SPECIFY)

SECTION 4, PART A NOT APPLICABLE

SECONDARY COMBUSTION CHAMBER DATA

COMBUSTION CHAMBER VOLUME (CUBIC FEET)

MINIMUM TEMPERATURE (DEG. F)

COMBUSTION AIR FEED RATE (SCFM)

GAUGE PRESSURE (INCHES WATER)

BURNER TYPE
(1) AXIAL FIRING
(2) RADIAL FIRING
(3) TANGENTIAL FIRING
4) OTHER

SECONDARY PRIMARY CHAMBER FUEL DATA

PARAMETER	PRIMARY FUEL	UNITS	SECONDARY FUEL	UNITS
FUEL CODE (SEE NOTE)				
PERCENT SULFUR				
PERCENT ASH				
PERCENT NITROGEN				
PERCENT CARBON				
PERCENT HYDROGEN				
PERCENT MOISTURE				
HEAT CONTENT (BTU/UNIT)				
MAXIMUM HOURLY COMBUSTION RATE (UNITS/HR)				
NORMAL ANNUAL COMBUSTION RATE (UNITS/YR)				

NOTE: INCINERATOR TYPES - 01) SINGLE CHAMBER; 02) MULTIPLE HEARTH; 03) ROTARY KILN; 04) FLUIDIZED BED;

05) OTHER (SPECIFY)

BURNER TYPE - 01) AXIAL FIRING; 02) RADIAL FIRING; 03) TANGENTIAL FIRING;

04) OTHER (SPECIFY)

FUEL CODES - 01) NATURAL GAS; 02) #1 OR #2 FUEL OIL; 03) #4 FUEL OIL; 04) #5 OR #6 FUEL OIL; 05) PROPANE

06) OTHER (SPECIFY)

PRIMARY CHAMBER MONITORING AND COMBUSTION CONTROLS

SECONDARY CHAMBER MONITORING AND COMBUSTION CONTROLS

SECTION 4, PART A NOT APPLICABLE

WASTE CHARACTERIZATION AND COMBUSTION RATE

PARAMETER	PRIMARY FUEL	UNITS	SECONDARY FUEL	UNITS
WASTE DESCRIPTION				
PERCENT SULFUR				
PERCENT ASH				
PERCENT NITROGEN				
PERCENT CARBON				
PERCENT HYDROGEN				
PERCENT MOISTURE				
HEAT CONTENT (BTU/UNIT)				
MAXIMUM HOURLY COMBUSTION RATE (UNITS/HR)				
NORMAL ANNUAL COMBUSTION RATE (UNITS/YR)				
METHOD OF ASH DISPOSAL				

POTENTIAL HAPS IN WASTES

HAP DESCRIPTION	HAP CAS NUMBER	FRACTION IN WASTE FEED BY WEIGHT	FRACTION IN BOTTOM ASH BY WEIGHT	FRACTION IN FLY ASH BY WEIGHT

SECTION 4, PART B NOT APPLICABLE

OPERATING DATA

PERCENT FUEL CONSUMPTION PER QUARTER

DEC-FEB	
MAR-MAY	
JUN-AUG	
SEP-NOV	

OPERATING SCHEDULE

HOURS/DAY	
DAY/WEEK	
WEEKS/YEAR	

POLLUTION CONTROL EQUIPMENT

PARAMETER	PRIMARY	SECONDARY
TYPE		
TYPE CODE (FROM APP. A)		
MANUFACTURER		
MODEL NUMBER		
PRESSURE DROP (IN. OF WATER)		
WET SCRUBBER FLOW (GPM)		
BAGHOUSE AIR/CLOTH RATIO (FPM)		

VENTILATION AND BUILDING/AREA DATA

ENCLOSED (Y/N)?	
HOOD TYPE (FROM APP. B)	
MINIMUM FLOW (ACFM)	
PERCENT CAPTURE EFFICIENCY	
BUILDING HEIGHT (FT)	
BUILDING/AREA LENGTH (FT)	
BUILDING/AREA WIDTH (FT)	

STACK DATA

GROUND ELEVATION (FT)	
UTM X COORDINATE (KM)	
UTM Y COORDINATE (KM)	
STACK TYPE (SEE NOTE BELOW)	
STACK EXIT HEIGHT FROM GROUND LEVEL (FT)	
STACK EXIT DIAMETER (FT)	
STACK EXIT GAS FLOWRATE (ACFM)	
STACK EXIT TEMPERATURE (DEG. F)	

AIR POLLUTANT EMISSIONS

POLLUTANT	CAS NUMBER	EMISSION FACTOR (SEE BELOW)	PERCENT CONTROL EFFICIENCY	ESTIMATED OR MEASURED EMISSION (LBS/HR)	ALLOWABLE EMISSIONS (LBS/HR)	(TONS/YR)	REFERENCE
PM							
PM-10							
SO2							
CO							
NOX							
VOC							
LEAD							

NOTE: STACK TYPE - 01) DOWNWARD; 02) VERTICAL (UNCOVERED); 03) VERTICAL (COVERED); 04) HORIZONTAL; 05) FUGITIVE
EMISSION FACTOR IN LBS/UNITS. PLEASE USE SAME HOURLY UNITS GIVEN IN FUEL DATA SECTION.

SECTION 5: STORAGE AND HANDLING OF LIQUID SOLVENTS & OTHER VOLATILE COMPOUND

NOT APPLICABLE

DEQ USE ONLY

DEQ PLANT ID CODE		DEQ PROCESS CODE		DEQ STACK ID CODE	
DEQ BUILDING CODE		PRIMARY SCC		SECONDARY SCC	
DEQ SEGMENT CODE					

PART A: GENERAL INFORMATION

PROCESS CODE OR DESCRIPTION

STACK DESCRIPTION

BUILDING DESCRIPTION

DATE INSTALLED DATE LAST MODIFIED

GENERAL TANK AND MATERIAL HANDLING DATA

MATERIAL DESCRIPTION

TANK CAPACITY (GALLONS) ANNUAL THROUGHPUT (GALLONS)

TANK TYPE SOURCE

PLEASE CHOOSE FROM BELOW
(01) FIXED-ROOF
(02) FLOATING ROOF (OR INTERNAL COVER)
(03) VARIABLE VAPOR-SPACE
(04) PRESSURE TANK
(05) UNDERGROUND - SPLASH LOADING
(06) OTHER

PLEASE CHOOSE FROM BELOW
(01) PIPELINE
(02) RAIL CAR
(03) TANK TRUCK
(04) SHIP BARGE
(05) OTHER

ADDITIONAL VAPOR PHASE DEGREASING DATA

MANUFACTURER OF DEGREASING AGENT

TANK SURFACE AREA (SQ. FT)

TEMPERATURE OF DEGREASING AGENT IN TANK (DEG. F)

METHOD OF VAPOR RECOVERY
Please choose from below:
(01) Incineration
(02) Refrigerated Liquid Scrubber
(03) Refrigerated Condenser
(04) Carbon Adsorption
(05) Vapor Return System
(06) No Recovery System
(07) Other

ADDITIONAL MATERIAL HANDLING DATA

PHYSICAL STATE	NUMBER OF PUMP SEALS	NUMBER OF IN-LINE VALVES	NUMBER OF SAFETY RELIEF VALVES
NUMBER OF OPEN-ENDED LINES	NUMBER OF SAMPLING CONNECTIONS		NUMBER OF SAMPLING CONNECTIONS

MATERIAL DATA

HAP DESCRIPTION	HAP CAS NUMBER	HAP FRACTION IN MATERIAL BY WEIGHT

SECTION 5, PART B

OPERATING DATA

PERCENT FUEL CONSUMPTION PER QUARTER

DEC-FEB	
MAR-MAY	
JUN-AUG	
SEP-NOV	

OPERATING SCHEDULE

HOURS/DAY	
DAY/WEEK	
WEEKS/YEAR	

POLLUTION CONTROL EQUIPMENT

PARAMETER	PRIMARY	SECONDARY
TYPE		
TYPE CODE (FROM APP. A)		
MANUFACTURER		
MODEL NUMBER		
PRESSURE DROP (IN. OF WATER)		
WET SCRUBBER FLOW (GPM)		
BAGHOUSE AIR/CLOTH RATIO (FPM)		

VENTILATION AND BUILDING/AREA DATA

ENCLOSED (Y/N)?	
HOOD TYPE (FROM APP. B)	
MINIMUM FLOW (ACFM)	
PERCENT CAPTURE EFFICIENCY	
BUILDING HEIGHT (FT)	
BUILDING/AREA LENGTH (FT)	
BUILDING/AREA WIDTH (FT)	

STACK DATA

GROUND ELEVATION (FT)	
UTM X COORDINATE (KM)	
UTM Y COORDINATE (KM)	
STACK TYPE (SEE NOTE BELOW)	
STACK EXIT HEIGHT FROM GROUND LEVEL (FT)	
STACK EXIT DIAMETER (FT)	
STACK EXIT GAS FLOWRATE (ACFM)	
STACK EXIT TEMPERATURE (DEG. F)	

AIR POLLUTANT EMISSIONS

POLLUTANT	CAS NUMBER	EMISSION FACTOR (SEE BELOW)	PERCENT CONTROL EFFICIENCY	ESTIMATED OR MEASURED EMISSIONS (LBS/HR)	ALLOWABLE EMISSIONS (LBS/HR)	(TONS/YR)	REFERENCE
PM							
PM-10							
SO2							
CO							
NOX							
VOC							
LEAD							

NOTE: STACK TYPE - 01) DOWNWARD; 02) VERTICAL (UNCOVERED); 03) VERTICAL (COVERED); 04) HORIZONTAL; 05) FUGITIVE
EMISSION FACTOR IN LBS/UNITS. PLEASE USE SAME HOURLY UNITS GIVEN IN FUEL DATA SECTION.

SECTION 6: LOADING RACKS

NOT APPLICABLE

DEQ USE ONLY

DEQ PLANT ID CODE		DEQ PROCESS CODE		DEQ STACK ID CODE	
DEQ BUILDING CODE		PRIMARY SCC		SECONDARY SCC	
DEQ SEGMENT CODE					

PART A: LOADING RACK DATA

PROCESS CODE OR DESCRIPTION

STACK DESCRIPTION

BUILDING DESCRIPTION

DATE INSTALLED

DATE MODIFIED

TYPE OF LOADING

Please choose from the following:

(01) Overhead loading - splash fill, normal service;
(02) Overhead loading - splash fill, balanced serviced;
(03) Overhead loading - submerged fill, normal service;
(04) Overhead loading - submerged fill, balanced service;
(05) Bottom loading - normal service;
(06) Bottom loading - balanced service

LOADING ARM VAPOR CLOSURE

Please choose from the following:

(01) Incineration
(02) GREENWOOD
(03) SOCO
(04) CHICKSAN
(05) None - open to air
(6) Other

MATERIAL LOADED

ANNUAL THROUGHPUT (GAL.)

REID VAPOR PRESSURE (PSI)

MAXIMUM MATERIAL TEMPERATURE (DEG. F)

AVERAGE MATERIAL TEMPERATURE (DEG. F)

SECTION 6, PART B NOT APPLICABLE

OPERATING DATA

PERCENT FUEL CONSUMPTION PER QUARTER

DEC-FEB	
MAR-MAY	
JUN-AUG	
SEP-NOV	

OPERATING SCHEDULE

HOURS/DAY	
DAY/WEEK	
WEEKS/YEAR	

POLLUTION CONTROL EQUIPMENT

PARAMETER	PRIMARY	SECONDARY
TYPE		
TYPE CODE (FROM APP. A)		
MANUFACTURER		
MODEL NUMBER		
PRESSURE DROP (IN. OF WATER)		
WET SCRUBBER FLOW (GPM)		
BAGHOUSE AIR/CLOTH RATIO (FPM)		

VENTILATION AND BUILDING/AREA DATA

ENCLOSED (Y/N)?	
HOOD TYPE (FROM APP. B)	
MINIMUM FLOW (ACFM)	
PERCENT CAPTURE EFFICIENCY	
BUILDING HEIGHT (FT)	
BUILDING/AREA LENGTH (FT)	
BUILDING/AREA WIDTH (FT)	

STACK DATA

GROUND ELEVATION (FT)	
UTM X COORDINATE (KM)	
UTM Y COORDINATE (KM)	
STACK TYPE (SEE NOTE BELOW)	
STACK EXIT HEIGHT FROM GROUND LEVEL (FT)	
STACK EXIT DIAMETER (FT)	
STACK EXIT GAS FLOWRATE (ACFM)	
STACK EXIT TEMPERATURE (DEG. F)	

AIR POLLUTANT EMISSIONS

POLLUTANT	CAS NUMBER	EMISSION FACTOR (SEE BELOW)	PERCENT CONTROL EFFICIENCY	ESTIMATED OR MEASURED EMISSIONS (LBS/HR)	ALLOWABLE EMISSIONS (LBS/HR)	(TONS/YR)	REFERENCE
PM							
PM-10							
SO2							
CO							
NOX							
VOC							
LEAD							

NOTE: STACK TYPE - 01) DOWNWARD; 02) VERTICAL (UNCOVERED); 03) VERTICAL (COVERED); 04) HORIZONTAL; 05) FUGITIVE
EMISSION FACTOR IN LBS/UNITS. PLEASE USE SAME HOURLY UNITS GIVEN IN FUEL DATA SECTION.

SECTION 7: SOLID MATERIAL TRANSPORT, HANDLING, AND STORAGE

NOT APPLICABLE

DEQ USE ONLY

DEQ PLANT ID CODE		DEQ PROCESS CODE		DEQ STACK ID CODE	
DEQ BUILDING CODE		PRIMARY SCC		SECONDARY SCC	
DEQ SEGMENT CODE					

PART A: GENERAL INFORMATION

PROCESS CODE OR DESCRIPTION

STACK DESCRIPTION

BUILDING DESCRIPTION

DATE INSTALLED OR LAST MODIFIED | DATE LAST MODIFIED

MATERIAL DESCRIPTION

MATERIAL TRANSFER RATES

MAXIMUM HOURLY TRANSFER RATE (UNITS/HOUR)

NORMAL HOURLY TRANSFER RATE (UNITS/HOUR)

NORMAL ANNUAL TRANSFER RATE (UNITS/YEAR)

UNIT OF MEASURE

BELT CONVEYOR/VEHICLE TRANSFER

NUMBER OF TRANSFERS | MATERIAL MOISTURE CONTENT (WEIGHT PERCENT) | MAXIMUM HOURLY WIND SPEED (MPH)

CONVEYORS ENCLOSED? (Y/N) | CONVEYORS IN BUILDINGS? (Y/N) | AVERAGE HOURLY WIND SPEED (MPH)

TRANSFERS ENCLOSED? (Y/N) | TRANSFERS IN BUILDINGS? (Y/N)

PNEUMATIC CONVEYOR TRANSFERS

MATERIAL MOISTURE CONTENT (WEIGHT PERCENT)

PRIMARY SEPARATOR TYPE | PRIMARY SEPARATOR PERCENT EFFICIENCY

SECONDARY SEPARATOR TYPE | SECONDARY SEPARATOR PERCENT EFFICIENCY

MATERIAL STORAGE DATA

PILE? (Y/N) | STORAGE CAPACITY | PILE LENGTH (FT.)

SILO? (Y/N) | STORAGE CAPACITY UNITS | PILE WIDTH (FT.)

OTHER STORAGE TYPE DESCRIPTION | PILE HEIGHT (FT.)

MATERIAL DATA

HAP DESCRIPTION	HAP CAS NUMBER	HAP FRACTION IN MATERIAL BY WEIGHT

SECTION 7, PART B

NOT APPLICABLE

OPERATING DATA

PERCENT FUEL CONSUMPTION PER QUARTER

DEC-FEB	
MAR-MAY	
JUN-AUG	
SEP-NOV	

OPERATING SCHEDULE

HOURS/DAY	
DAY/WEEK	
WEEKS/YEAR	

POLLUTION CONTROL EQUIPMENT

PARAMETER	PRIMARY	SECONDARY
TYPE		
TYPE CODE (FROM APP. A)		
MANUFACTURER		
MODEL NUMBER		
PRESSURE DROP (IN. OF WATER)		
WET SCRUBBER FLOW (GPM)		
BAGHOUSE AIR/CLOTH RATIO (FPM)		

VENTILATION AND BUILDING/AREA DATA

ENCLOSED (Y/N)?	
HOOD TYPE (FROM APP. B)	
MINIMUM FLOW (ACFM)	
PERCENT CAPTURE EFFICIENCY	
BUILDING HEIGHT (FT)	
BUILDING/AREA LENGTH (FT)	
BUILDING/AREA WIDTH (FT)	

STACK DATA

GROUND ELEVATION (FT)	
UTM X COORDINATE (KM)	
UTM Y COORDINATE (KM)	
STACK TYPE (SEE NOTE BELOW)	
STACK EXIT HEIGHT FROM GROUND LEVEL (FT)	
STACK EXIT DIAMETER (FT)	
STACK EXIT GAS FLOWRATE (ACFM)	
STACK EXIT TEMPERATURE (DEG. F)	

AIR POLLUTANT EMISSIONS

POLLUTANT	CAS NUMBER	EMISSION FACTOR (SEE BELOW)	PERCENT CONTROL EFFICIENCY	ESTIMATED OR MEASURED EMISSIONS (LBS/HR)	ALLOWABLE EMISSIONS (LBS/HR)	(TONS/YR)	REFERENCE
PM							
PM-10							
SO2							
CO							
NOX							
VOC							
LEAD							

NOTE: STACK TYPE - 01) DOWN[illegible] 02) VERTICAL (UNCOVERED); 03) VERTICAL (COVERED); 04) HORIZONTAL; 05) FUGITIVE
EMISSION FACTOR IN LBS/UNITS. PLEASE USE SAME HOURLY UNITS GIVEN IN FUEL DATA SECTION.

SECTION 8: FUGITIVE ROAD DUST SOURCES — NEGLIGIBLE

DEQ USE ONLY

DEQ PLANT ID CODE		DEQ PROCESS CODE		DEQ STACK ID CODE	
DEQ BUILDING CODE		PRIMARY SCC		SECONDARY SCC	
DEQ SEGMENT CODE					

PART A: GENERAL INFORMATION

ROAD DESCRIPTION

PAVED? (Y/N)

LENGTH (FT.)

WIDTH (FT.)

BEGINNING COORDINATES UTM-X (KM)	BEGINNING COORDINATES UTM-Y (KM)	END COORDINATES UTM-X (KM)	END COORDINATES UTM-Y (KM)

DATA FOR ALL ROADS - PAVED AND UNPAVED

VEHICLE DESCRIPTION	NUMBER OF ROUNDTRIPS PER DAY	VEHICLE MILES TRAVELED PER DAY	NUMBER OF DAYS PER YEAR USED	AVERAGE VEHICLE SPEED (MPH)	SURFACE SILT CONTENT (% WEIGHT)

DATA: UNPAVED ROADS

VEHICLE DESCRIPTION	VEHICLE EMPTY WEIGHT (TONS)	VEHICLE FULL WEIGHT TONS	NUMBER OF WHEELS PER VEHICLE	NUMBER OF DAYS >0.01 INCHES PRECIPITATION

DATA: PAVED ROADS

NUMBER OF LANES	INDUSTRIAL AUGMENTATION FACTOR	DUST LOADING (LB/MILE)

ROAD DUST CHEMICAL DATA

HAP DESCRIPTION	HAP CAS NUMBER	HAP FRACTION IN ROAD DUST BY WEIGHT

SECTION 8, PART B

NEGLIGIBLE

OPERATING DATA

PERCENT FUEL CONSUMPTION PER QUARTER

DEC-FEB	
MAR-MAY	
JUN-AUG	
SEP-NOV	

OPERATING SCHEDULE

HOURS/DAY	
DAY/WEEK	
WEEKS/YEAR	

FUGITIVE DUST CONTROL DATA

PARAMETER	PRIMARY	SECONDARY
CONTROL DESCRIPTION		
CONTROL CODE (APPENDIX A)		
MINIMUM DAILY APPLICATIONS OF CONTROL		
MAXIMUM DAILY APPLICATIONS OF CONTROL		
AVERAGE ANNUAL APPLICATIONS OF CONTROL		
AMOUNT APPLIED (UNITS/APPLICATION)		
UNITS FOR APPLICATION AMOUNT		

AIR POLLUTANT EMISSIONS

POLLUTANT	CAS NUMBER	EMISSION FACTOR (SEE BELOW)	PERCENT CONTROL EFFICIENCY	ESTIMATED OR MEASURED EMISSIONS (LBS/HR)	ALLOWABLE EMISSIONS (LBS/HR)	(TONS/YR)	REFERENCE
PM							
PM-10							
LEAD							

NOTES: IN LBS/UNIT. USE UNITS OF VEHICLE MILES TRAVELED (VMT

EXHAUST GAS FLOW DATA

CLIENT: Spunstrand
SOURCE: Trim Cyclone
SAMPLE POINTS: 6

DATE: 6/6/03
RUN #: 1of 1

POINT	PITOT ΔP	STACK T_s	$\Delta P^{\wedge 0.5}$
1	0.41	68	0.640
2	0.35	68	0.589
3	0.44	68	0.660
4	0.48	68	0.693
5	0.34	68	0.581
6	0.38	68	0.616
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GENERAL FIELD DATA

Pitot Coefficient	C_p	0.84	
Barometric Pressure (inches Hg)	P_{bo}	27.2	
Static Pressure (inches H_2O)	P_{static}	0.1	
Stack Diameter (inches)	D_{stack}	8.00	
or Rectangular Stack Dimensions (inches)	D_{LxW}		X
Dry Molecular Weight (lb/lb mole)	M_d	29	

MOISTURE DATA

Wet Bulb Temp.: 50 Dry Bulb Temp.: 68

Moisture Content, Bwo: 0.0068

CALCULATED RESULTS:

Average ΔP	ΔP	0.3981	
Average of ΔP sq. roots	$(\sqrt{\Delta P})$ave	0.6298	
Average Stack Temp	T_s	68.000	°F
Area of Stack	A_s	0.3491	$ft.^2$
Velocity of Stack Gas	V_s	37.04	ft./sec.
Actual Flow of Stack Gas	Q_a	775.8	acfm
Standard Flow of Stack Gas	Q_s	700.4	dscf/m

Absolute Stack Gas Pressure:

$Ps = Pb + (Pstatic / 13.6) = 27.20 + (0.10 / 13.6) =$ 27.21

Molecular Weight of Stack Gas:

$Ms = Md (1\text{-}Bwo) + 18 (Bwo) = 29.00 (1 - 0.0068) + 18 (0.0068) =$ 28.92

Velocity of Stack Gas:

$$Vs = (Kp) (CP) \sqrt{\frac{Ts + 460}{(Ms) (Ps)}} \quad (\sqrt{\Delta P})ave = (85.49) (0.84) \sqrt{\frac{68.00 + 460}{(28.92) (27.21)}} = 37.04$$

Actual Flow of Stack Gas:

$Qa = (60) (As) (Vs) = (60) (0.3491) (37.04) =$ 775.82

Standard Stack Gas Flow:

$$Qs = \frac{(Qa) (Ps) (17.64) (1 - Bwo)}{Ts + 460} = \frac{(775.82) (27.21) (17.64) (1 - 0.0068)}{68.00 + 460} = 700.39$$

Appendix B

Air Dispersion Model

Air Dispersion Modeling Report

Spunstrand Incorporated

1. Introduction

This air modeling analysis was performed to demonstrate compliance with an application for a Tier I operating permit.

2. Modeling Requirements and Methodology

2.1 Area Classification

Spunstrand Incorporated is located at Wallace, Idaho, in Shoshone County.
This area is designated as an attainment or unclassifiable area.

2.2 Applicable Impact Limits and Required Analysis for Criteria Pollutants

A significant impact analysis for criteria air pollutants is first performed to determine if the maximum impact to the ambient air exceeds the significant contribution levels of IDAPA 58.01.01.006.93. When the significant contribution level for a pollutant is exceeded, a full impact analysis of the National Ambient Air Quality Standards (NAAQS) is required for that pollutant. The NAAQS analysis requires adding background concentrations to the modeled ambient concentrations to determine if a violation of the NAAQS occurs. Table 1 shows the averaging periods and regulatory limits modeling values used to determine the significant contribution levels and the NAAQS impact analysis for criteria air pollutants.

Table 1. Applicable Regulatory Limits

Pollutant	Averaging Period	Significant Contribution Analysis Limit ($\mu g/m^3$)	Significant Contribution Analysis Model Value Used	Full Impact NAAQS Analysis Limit ($\mu g/m^3$)	Full Impact NAAQS Analysis Model Value Used
PM-10	24-hour	5	Maximum 1st highest	150	Maximum 6th highest
	Annual	1	Maximum 1st highest	50	Maximum 1st highest
CO	1-hour	500	Maximum 1st highest	40,000	Maximum 2nd highest
	8-hour	2,000	Maximum 1st highest	10,000	Maximum 2nd highest
SO2	3-hour	25	Maximum 1st highest	1,300	Maximum 2nd highest
	24-hour	5	Maximum 1st highest	365	Maximum 2nd highest
	Annual	1	Maximum 1st highest	80	Maximum 1st highest
NO2	Annual	1	Maximum 1st highest	100	Maximum 1st highest
Lead (Pb)	Quarterly	NA	Maximum 1st highest	1.5	Maximum 1st highest

2.3 Toxic Air Pollutants Impact Analysis

An ambient air assessment for a Toxic Air Pollutant (TAP) is required when the emission screening level (EL) is exceeded. Styrene emissions from the facility were estimated to be 6.59 lb/hr, below the emission screening level of 6.67 lb/hr.

2.4 Modeling Parameters and Methods

Table 2 summarizes the parameters used in the air dispersion modeling analysis.

Table 2. Modeling Parameters

Parameter	Description/Values	Documentation/Additional Description
Model	ISCST3-Prime	Version 99020
Meteorological Data	Spokane, Washington - Surface and Upper Air	1987 - 1991 Rotated -90
Model Options	Regulatory Default	
Land Use	Rural	Based on Population Density and Land Use
Terrain	Elevated Terrain Simple and Complex	Receptor Elevations Calculated From Didgetized Terrain Data.
Building Downwash	Used Building Profile Imput Program (BPIP-Prime)	Bldg 1 - Main Production Plant 120 ft × 110 ft × 24 ft high Bldg 2 - Cut/Chop 90 ft × 25 ft × 14 ft high Bldg 3 - Warehouse/Resin Room 78 ft × 57 ft × 24 ft high Bldg 4 - SM8 100 ft × 60 ft × 30 ft high Bldg 4 - Office 35 ft × 17 ft × 14 ft high
Receptor Grids (See Figure 1)	Grid 1 - 20 Meter Spacing	Fence Line
	Grid 2 - 25 Meter Spacing	Out to 175 meters
	Grid 3 - 100 Meter Spacing	Out to 450 meters
Facility Location UTM Zone 11, 1927 NAD	Easting	580.262 kilometers
	Northing	5,258.941 kilometers

2.4.1 Model Description and Justification

BEEST for Windows BEE-Line Software was used to run the Industrial Source Complex ISCST3-Prime Version 99020 air dispersion modeling analysis.

2.4.2 Meteorological Data

Surface and upper air meteorological data from the Spokane, Washington Station #2415 were used in the modeling analysis. The data was collected from 1987 through 1991. The meteorological data was rotated 90 degrees to align it with the narrow northwest-southeast trending valley in which the facility is located.

2.4.3 Model Options

Regulatory default options were used in the modeling analysis.

2.4.4 Land Use

Rural land use was used based on a land classification type and population density. Over 50 percent of the surrounding area within a three-kilometer radius is classified as A4 and population density is less than 750 people per square mile.

2.4.5 Terrain

Elevated terrain was considered in the modeling analysis using digitized terrain data to calculate receptor elevations.

2.4.6 Building Downwash Effects

The Building Profile Input Program (BPIP-Prime) for ISCST3-Prime was used to determine downwash effect from structures located at the facility.

2.4.7 Receptor Grid

20-meter spaced receptors were located along the fence line. Rectangular grids spaced at 25 meters and 50 meters were located out to 175 meters and 450 meters respectively from thee fence line.

2.4.8 Emission Rate

Particulate emissions are generated from cutting and trimming the product. The emissions are vented to a small cyclone.

Table 3. Criteria Pollutant Emission Rates Used for Modeling Analysis

Source (ID Code)	PM-10 (lb/hr)	CO (lb/hr)	SO2 (lb/hr)	NO2 (lb/hr)
Dust Collection Cyclone (DCCYC)	0.6	---	---	---

2.4.9 Emissions Release Parameters

Table 4 shows the release parameters for the modeled sources

Table 4. Emission Source and Stack Parameters

Source (ID Code)	Source Type	Stack Height (ft)	Stack Diameter (ft)	Stack Gas Temp. (°F)	Stack Gas Flow (acfm)
Dust Collection Cyclone (DCCYC)	Point	22	0.667	68	776*

* Stack Has a Rain Cap. A Flow Velocity of 0.001 meters/sec. Was Used in Model Analysis.

3. Modeling Results

3.1 Criteria Air Pollutant Analysis

Results of the significant impact analysis for criteria air pollutants are shown in Table 5. The potential ambient impact for PM-10 exceeded the significant contribution levels.

Table 5. Significant Impact Analysis for Criteria Air Pollutants

Pollutant	Averaging Period	Ambient Impact ($\mu g/m^3$)	Significant Contribution ($\mu g/m^3$)	Full Impact Analysis Required?
PM-10	24-hour	106.54626	5.0	YES
	Annual	14.94815	1.0	YES

Table 6 shows the results of the facility-wide full impact analysis for PM_{10} and the background concentration values added to the modeled ambient impacts.

Table 6. Full Impact Analysis for Criteria Pollutants (Facility-wide Emissions)

Pollutant	Averaging Period	Ambient Impact ($\mu g/m^3$)	Background Conc. ($\mu g/m^3$)	Total Ambient Conc. ($\mu g/m^3$)	Regulatory Limit ($\mu g/m^3$)	Percent of NAAQS
PM-10	24-hour	71.4808	66	137.481	150	91.7
	Annual	14.94815	19	33.948	50	67.9

Figure 4 shows the modeled 6th highest 24-hour averaged PM_{10} concentration impacts.

4. Conclusion

The air dispersion modeling results are below the applicable NAAQS standards. Although the full impact analysis for PM_{10} is over 90% of the NAAQS, the area of impact is very small.

A summary table showing the PM_{10} air dispersion modeling results for each year of meteorological data is included. A disk containing the .bst, .pip, .usf and .dta files is attached.

```
*** ISC3P - VERSION 99020 ***
*** Spunstrand                                                    ***
*** Model Executed on 07/31/03 at 15:43:07 ***


 BEE-Line ISC3P "BEEST" Version 8.00

  Input File - C:\Clients\Spunstrand\DEQ Mdl Files\Prim
 Output File - C:\Clients\Spunstrand\DEQ Mdl Files\Prim
    Met File - C:\Clients\Met Data\SPOKE90.MET

      Number of sources -          1
 Number of source groups -          1
    Number of receptors -        903
```

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
DCCYC	0	0.75600E-01	580288.7	5258928.0	823.0	6.71	293.15	0.00	0.20	YES	

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
DCCYC	DCCYC

*** THE SUMMARY OF MAXIMUM ANNUAL (8760 HRS) RESULTS ***

** CONC OF PMTEN IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
DCCYC	1ST HIGHEST VALUE IS	14.94815 AT (	580270.00, 5258905.50, 822.96, 0.00)	DC	NA
	2ND HIGHEST VALUE IS	13.71273 AT (	580256.69, 5258918.50, 822.96, 0.00)	DC	NA
	3RD HIGHEST VALUE IS	11.97154 AT (	580321.63, 5258948.50, 822.66, 0.00)	DC	NA
	4TH HIGHEST VALUE IS	11.54071 AT (	580275.00, 5258900.00, 822.96, 0.00)	DC	NA
	5TH HIGHEST VALUE IS	11.36719 AT (	580325.00, 5258950.00, 822.96, 0.00)	DC	NA
	6TH HIGHEST VALUE IS	10.78790 AT (	580337.31, 5258937.00, 823.57, 0.00)	DC	NA

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF PMTEN IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
DCCYC	HIGH 1ST HIGH VALUE IS	92.15041c	ON 90110524: AT (	580270.00, 5258905.50, 822.96, 0.00)	DC	NA
	HIGH 6TH HIGH VALUE IS	56.52797	ON 90101024: AT (	580270.00, 5258905.50, 822.96, 0.00)	DC	NA

```
*** ISC3P - VERSION 99020 ***
*** Spunstrand                                                    ***
*** Model Executed on 07/31/03 at 15:40:09 ***

 BEE-Line ISC3P "BEEST" Version 8.00

 Input File - C:\Clients\Spunstrand\DEQ Mdl Files\Prim
Output File - C:\Clients\Spunstrand\DEQ Mdl Files\Prim
   Met File - C:\Clients\Met Data\Spoke87.met

      Number of sources -          1
Number of source groups -          1
    Number of receptors -        903
```

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
DCCYC	0	0.75600E-01	580288.7	5258928.0	823.0	6.71	293.15	0.00	0.20	YES	

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
DCCYC	DCCYC ,

*** THE SUMMARY OF MAXIMUM ANNUAL (8760 HRS) RESULTS ***

** CONC OF PMTEN IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
DCCYC	1ST HIGHEST VALUE IS	13.51546 AT (	580270.00, 5258905.50, 822.96, 0.00)	DC	NA
	2ND HIGHEST VALUE IS	13.18514 AT (	580256.69, 5258918.50, 822.96, 0.00)	DC	NA
	3RD HIGHEST VALUE IS	11.50196 AT (	580321.63, 5258948.50, 822.66, 0.00)	DC	NA
	4TH HIGHEST VALUE IS	11.23352 AT (	580243.38, 5258931.50, 822.96, 0.00)	DC	NA
	5TH HIGHEST VALUE IS	10.94332 AT (	580325.00, 5258950.00, 822.96, 0.00)	DC	NA
	6TH HIGHEST VALUE IS	10.39631 AT (	580275.00, 5258900.00, 822.96, 0.00)	DC	NA

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF PMTEN IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
DCCYC	HIGH 1ST HIGH VALUE IS	106.54626	ON 87121724: AT (580243.38, 5258931.50, 822.96, 0.00)	DC	NA
	HIGH 6TH HIGH VALUE IS	71.48080c	ON 87010624: AT (580243.38, 5258931.50, 822.96, 0.00)	DC	NA

APPENDIX C

Model Electronic Data Files